



F0612

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (cancelled)
2. (cancelled)
3. (cancelled)
4. (cancelled)
5. (cancelled)
6. (cancelled)
7. (cancelled)
8. (original) A method for regulating nitrided gate oxide layer formation, comprising:
 - defining a wafer as a plurality of portions;
 - establishing one or more nitrided gate oxide layer formations to be formed;
 - directing light onto at least one of the nitrided gate oxide layer formations;
 - collecting light reflected from at least one nitrided gate oxide layer formation;
 - analyzing the reflected light to determine nitrogen concentration of the at

least one nitrided gate oxide layer formation; and

controlling one or more nitrided gate oxide layer formers to regulate gate oxide formation of the at least one nitrided gate oxide layer formation.

9. (original) The method of claim 8, wherein analyzing the reflected light further comprises:

employing a scatterometry system to process the reflected light.

10. (original) The method of claim 8, further comprising:

collecting light passing through the at least one nitrided gate oxide layer formation; and

analyzing the passed through light to determine the nitrogen concentration of the at least one nitrided gate oxide layer formation.

11. (original) The method of claim 8, wherein analyzing the passed through light further comprises:

using a scatterometry system to process the passed through light.

12. (original) The method of claim 8, further comprising:

using a processor to control the at least one nitrided gate oxide former based at least partially on data received from the scatterometry system.

13. (original) The method of claim 11, further comprising:

using a processor to control the at least one nitrided gate oxide former based at least partially on data received from the scatterometry system.

14. (original) A method for regulating nitrided gate oxide layer formation, comprising:

partitioning a wafer into a plurality of grid blocks;

using one or more nitrided gate oxide layer formers to form one or more nitrided gate oxide layers on the wafer, each nitrided gate oxide former functionally corresponding to a respective grid block;

determining nitrogen concentration of the one or more nitrided gate oxide layer formations on one or more portions of the wafer, each portion corresponding to a respective grid block; and

using a processor to coordinate control of the nitrided gate oxide layer formers, respectively, in accordance with determined nitrided gate oxide nitrogen concentration of the respective portions of the wafer.

15. (cancelled)

16. (new) A method for regulating nitrided gate oxide layer formation, comprising:

- defining a wafer as a plurality of portions;
- establishing one or more nitrided gate oxide layer formations to be formed;
- directing light onto at least one of the nitrided gate oxide layer formations;
- collecting light reflected from at least one nitrided gate oxide layer formation;
- analyzing the reflected light to determine nitrogen concentration of the at least one nitrided gate oxide layer formation;
- controlling one or more nitrided gate oxide layer formers to regulate gate oxide formation of the at least one nitrided gate oxide layer formation;
- collecting light passing through the at least one nitrided gate oxide layer formation; and
- analyzing the passed through light to determine the nitrogen concentration of the at least one nitrided gate oxide layer formation.

17. (new) The method of claim 16, wherein analyzing the reflected light further comprises:

employing a scatterometry system to process the reflected light.

18. (new) The method of claim 16, wherein analyzing the passed through light further comprises:

using a scatterometry system to process the passed through light.

19. (new) The method of claim 16, further comprising:

using a processor to control the at least one nitrided gate oxide former based at least partially on data received from the collected light.

20. (new) The method of claim 18, further comprising:

using a processor to control the at least one nitrided gate oxide former based at least partially on data received from the scatterometry system.

21. (new) The method of claim 16, wherein the nitrided gate oxide layer has a thickness of less than ten nanometers.

22. (new) The method of claim 16, wherein the nitrided gate oxide layer has a thickness of less than three nanometers.

23. (new) A method for regulating nitrided gate oxide layer formation, comprising:

defining a wafer as a plurality of portions;

establishing one or more nitrided gate oxide layer formations to be formed;

directing light onto at least one of the nitrided gate oxide layer formations;

collecting light reflected from at least one nitrided gate oxide layer formation;

analyzing the reflected light to determine nitrogen concentration of the at least one nitrided gate oxide layer formation using a scatterometry system;

controlling one or more nitrided gate oxide layer formers to regulate gate oxide formation of the at least one nitrided gate oxide layer formation; and

using a processor to control the at least one nitrided gate oxide former based at least partially on data received from the scatterometry system.

24. (new) The method of claim 23, wherein analyzing the reflected light further comprises:

employing a scatterometry system to direct light onto at least one of the nitrided gate oxide layer formations.

25. (new) The method of claim 23, further comprising:

collecting light passing through the at least one nitrided gate oxide layer formation; and

analyzing the passed through light to determine the nitrogen concentration of the at least one nitrided gate oxide layer formation.

26. (New) The method of claim 23, wherein the nitrided gate oxide layer has a thickness of less than three nanometers.

27. (new) The method of claim 23, wherein the nitrided gate oxide layer has a thickness of less than ten nanometers.